CLAIMS

1.   A software configurable tracking system, said system comprising:

a transmitter for transmitting a signal;

a receiver for receiving said signal from said transmitter; and

5   a tracker electronics for analyzing said signal received by said receiver, said tracker electronics accommodating a plurality of tracking system architectures for said transmitter and said receiver.

2.   The system of claim 1, wherein said tracker electronics are configured by

10   software to accommodate a plurality of tracking system architectures.

3.   The system of claim 1, wherein said tracker electronics store waveforms for a tracking system architecture in memory.

15   4.   The system of claim 1, wherein said tracker electronics generate waveforms for a tracking system architecture on demand.

5.   The system of claim 1, wherein said tracker electronics store software for a tracking system architecture in memory.

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6.   The system of claim 1, wherein said tracker electronics generate software code for a tracking system architecture on demand.

7.   The system of claim 1, wherein said tracker electronics comprise modular tracker electronics.

8.   The system of claim 1, wherein said tracker electronics determine at least one of a position and an orientation of said transmitter based on said receiver.

9.   The system of claim 1, wherein said tracker electronics determine at least one of a position and an orientation of said receiver based on said transmitter.

10.   A method for electromagnetic tracking, said method comprising:

selecting a tracker configuration for components in an electromagnetic tracker;

generating a processing scheme for the tracker configuration; and

applying the processing scheme to the components in the electromagnetic tracker.

11.   The method of claim 10, wherein said generating step further comprises generating a processing scheme on demand.

12.   The method of claim 10, wherein said generating step further comprises generating a processing scheme for the tracker configuration using software.

13.   The method of claim 10, wherein said generating step further comprises generating a processing scheme for the tracker configuration using a configurable processor.

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14. The method of claim 10, further comprising storing the processing scheme in memory.

5   15. The method of claim 10, further comprising determining at least one of a position and an orientation of at least one component in the electromagnetic tracker.

16. A configurable electromagnetic tracking system, said system comprising:

at least one of a transmitter and a receiver for measuring a position in a coordinate

10   system;

tracker electronics for determining position of said at least one of a transmitter and a receiver using information from said at least one of a transmitter and a receiver, said tracker electronics configurable for a plurality of tracking system architectures.

15   17. The system of claim 16, wherein said tracker electronics generates a processing scheme for a tracking system architecture.

18. The system of claim 16, wherein said tracker electronics simultaneously supports a plurality of tracking system architectures.

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19. The system of claim 16, wherein said tracker electronics comprise modular, configurable tracker electronics.

20. The system of claim 16, wherein said tracker electronics uses software to generate support for said plurality of tracking system architectures.

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